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EXAMINER

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 8/5/08 have been fully considered but they are not persuasive.

Page 5, paragraph beginning with "Claim 31":

The applicant argues that Cheriton does not disclose determining at the display device a select channel of a plurality of channels of a multicast channel based on the data transmission rate. Instead the applicant points out that Cheriton discloses a system wherein subscribers would be unable to detect a source transition as all of the traffic would appear as originating from a single virtual host (S,G)". The examiner agrees that the portions of Cheriton cited by the applicant do teach a system wherein the source of the transmission is hidden from the client (figure 5), as in this embodiment the system is being used to be redundant by having a second source (figure 5, part 515) to fill in for the first source (figure 5, part 510) when the first source fails (column 5, lines 22-28). The portion cited by the examiner in the rejection of the claim (mostly relating to figure 7) shows that a single source (figure 7, part 310) is transmitted down to separate transmission lines (figure 7, parts 730a and 730b). The flow look-up module will instruct the packet rewrite table to provide two or more different virtual source addresses and destination group addresses (column 6, lines 18-21). A later embodiment goes a step further and discloses that the router (figure 7, part 700) can be used to translate different resolutions to different multicast channels by selectively dropping portions from the high resolution source to create a lower resolution video (column 6, line 63 to

column 7, line 8). While the examiner can understand that the applicant's cited portion does not meet the limitation, he does interpret this later embodiment as meeting it.

Page 6, paragraph beginning with "As discussed above":

The applicant argues that Cheriton and Chou would not be combinable as Cheriton discloses a system wherein the client receives a video from a single source while Chou teaches multiple multicast address groups. This argument is based on the above argument being persuasive, with which the examiner did not agree. Therefore the references both deal with multiple multicast addresses providing separate video feeds and are considered combinable.

Page 8, first paragraph:

The applicant argues that Deshpande teaches a method wherein receivers report their bandwidths to a server that clusters the receivers onto a specific multicast channel. This would not meet the limitation of claim 58, wherein a networked display device determines a first multicast address based on a first data transmission rate. Upon rereading the reference, the examiner is not sure where this embodiment is found. Deshpande discloses a device wherein a video is divided into a plurality of layers, which enables different receivers to receive different quality versions of the same video by receiving only the layers that it has the bandwidth to receive (figure 1, parts 22, 58, 60, 62, and 64; column 2, lines 10-20). The receiver selects which layers to receive by observing it's own packet loss (which occur when its own bandwidth is not high enough

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to receive the current video quality level) and dropping layers when the packet loss gets too high (column 4, lines 58-64; column 5, lines 1-32). The reference even states that the server takes no active roll in allocating the bandwidth to the receivers, which goes against what the applicant is arguing. The applicant may be referring to another embodiment of the reference, but as that embodiment is not being cited by the examiner, its inclusion in the reference is moot.

The applicant continues to argue that as the server allocates the bandwidth to the receivers in Deshpande that it cannot be combined with Chou. As shown in the paragraph above, this interpretation of the reference is not correct and therefore the combination is valid.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 31, 74, 76, 77, and 78 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheriton in view of Chou in view of Schober.

Referring to claim 31, Cheriton discloses a method comprising:

subscribing at the display device to a first channel of a plurality of channels of a multicast channel (column 7, lines 5-8; figure 5, part 550; column 2, lines 59-65), wherein each channel of the plurality of channels is used to provide a different version

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of a plurality of versions of a video stream, and where each version of the video stream includes a different resolution scale (column 6, lines 63-67; column 7, lines 1-5); and
accessing the first channel to receive a version of the video stream associated with the first channel (column 7, lines 5-8).

Cheriton does not disclose a method including the steps of determining at a display device a first data transmission rate between the display device and a wireless access point; wherein subscribing at the display device to a first channel of a plurality of channels of a multicast channel is based on the first data transmission rate; and
wherein the access point is a wireless access point.

In an analogous art, Chou teaches a method including the steps of determining at a display device a first data transmission rate between the display device and an access point; wherein subscribing at the display device to a first channel of a plurality of channels of a multicast channel is based on the first data transmission rate (column 8, line 66 to column 9, line 10).

At the time of the invention it would have been obvious for one of ordinary skill in the art to add the data transmission rate determining taught by Chou to the method disclosed by Cheriton. The motivation would have been to enable the receiver to only be able to subscribe to channels that matched the receiver's available bandwidth, therefore allowing the system to preserve bandwidth.

Cheriton and Chou do not disclose a method wherein the access point is a wireless access point.

In an analogous art, Schober teaches a method wherein the access point is a wireless access point (page 7, paragraph 73, lines 8-14).

At the time of the invention it would have been obvious for one of ordinary skill in the art to add the wireless access point, as taught by Schober, in the method disclosed by Cheriton and Chou. The motivation would have been to enable the user to enjoy video playback while not being constrained to one physical location.

Claim 76 is rejected on the same grounds as claim 31.

Referring to claim 74, Cheriton discloses a method of claim 31, wherein accessing the select channel to receive the version of the video stream comprises associating the display device with a multicast group associated with the select channel (column 6, lines 18-21; column 6, line 63 to column 7, lines 8).

Claim 78 is rejected on the same grounds as claim 74.

Referring to claim 77, Cheriton and Chou do not disclose a display device of claim 76, wherein the display device comprises a wireless display device.

In an analogous art, Schober teaches a display device of claim 76, wherein the display device comprises a wireless display device (page 7, paragraph 73, lines 8-14).

At the time of the invention it would have been obvious for one of ordinary skill in the art to use the wireless display device taught by Schober in the method disclosed by Cheriton and Chou. The motivation would have been to enable the display device to be able to be used in places without a physical connection.

Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cheriton in view of Chou in view of Schober as applied to claim 31 above, and further in view of Sachs.

Referring to claim 32, Cheriton, Chou, and Schober do not disclose a method of claim 31, wherein the multicast channel is based on a IEEE 802.11 standard.

Sachs discloses a method of claim 31, wherein the multicast channel is based on a IEEE 802.11 standard (paragraph 19, lines 2-9).

At the time of the invention it would have been obvious for one of ordinary skill in the art to add the wireless transmission taught by Sachs to the method disclosed by Cheriton, Chou, and Schober. The motivation would have been to enable the user to enjoy video playback while not being constrained to one physical location.

Claims 75 and 79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheriton, Chou, and Schober as applied to the claims above, and further in view of Hinderks.

Referring to claim 75, Cheriton, Chou and Schober do not disclose a method of claim 31, wherein determining the select channel of the plurality of channels comprises performing a table lookup based on the data transmission rate to identify the select channel.

In an analogous art, Hinderks teaches a method of claim 31, wherein determining the select channel of the plurality of channels comprises performing a table lookup

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based on the data transmission rate to identify the select channel (page 5, paragraph 54, lines 1-6 and 16-22).

At the time of the invention it would have been obvious for one of ordinary skill in the art to use the lookup table taught by Hinderks in the method disclosed by Cheriton, Chou, and Schober. The motivation would have been to enable the system to use a one-way network (page 5, paragraph 54, lines 16-22).

Claim 79 is rejected on the same grounds as claim 75.

Claims 58, 59, and 73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deshpande in view of Chou.

Referring to claim 58, Deshpande discloses a method comprising:

determining, at a networked display device, a first data transmission rate of a transmission connection of the networked display device at a first time (column 4, lines 32-36 and 40-44);

receiving, at the networked display device, a first multicast address from a plurality of multicast addresses based on the first data transmission rate (column 5, lines 3-8), each of the plurality of multicast addresses associated with a corresponding version of a plurality of versions of a video stream (column 1, lines 22-26 and 57-67); and

receiving, at the networked display device, a first version of the plurality of versions of the video stream via the transmission connection using the first multicast address for a first duration (column 2, lines 11-19; figure 3).

Deshpande does not disclose a method wherein the networked display device determines an address based upon available bandwidth.

In an analogous art, Chou teaches a method wherein the networked display device determines an address based upon available bandwidth (column 8, line 66 to column 9, line 10).

At the time of the invention it would have been obvious for one of ordinary skill in the art to add the data transmission rate determining taught by Chou to the method disclosed by Cheriton. The motivation would have been to enable the receiver to only be able to subscribe to channels that matched the receiver's available bandwidth, therefore allowing the system to preserve bandwidth.

Referring to claim 59, Deshpande does not disclose a method of claim 58, wherein receiving the first version of the plurality of versions of the video stream comprises: processing, at the networked display device, a plurality of transmitted data packets associated with the first multicast address and having data representative of the first version of the plurality of versions of the video stream.

In an analogous art, Chou teaches a method of claim 58, wherein receiving the first version of the plurality of versions of the video stream comprises: processing, at the networked display device, a plurality of transmitted data packets associated with the first multicast address and having data representative of the first version of the plurality of versions of the video stream (figure 2, part 230; figure 7)

At the time of the invention it would have been obvious for one of ordinary skill in the art to add video processing taught by Chou to the device disclosed by Deshpande. The motivation would have been that presenting the video to a user would require processing the video stream.

Referring to claim 73, Deshpande discloses a method of claim 58, wherein receiving the first version of the plurality of versions comprises associating the networked display device with a multicast group associated with the multicast address (column 4, line 58 to column 5, line 32).

Claim 60 is rejected under 35 U.S.C. 103(a) as being unpatentable over Deshpande in view of Chou as applied to claim 58 above, and further in view of Schober.

Referring to claim 60, Deshpande and Chou do not disclose a method of claim 58, wherein the transmission connection comprises a wireless connection between the networked display device and an access point.

In an analogous art, Schober teaches a method of claim 58, wherein the transmission connection comprises a wireless connection between the networked display device and an access point (page 7, paragraph 73, lines 8-14).

At the time of the invention it would have been obvious for one of ordinary skill in the art to use the wireless transmission taught by Schober in the method disclosed by

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Deshpande and Chou. The motivation would have been to enable the display device to be able to be used in places without a physical connection.

Claim 61 is rejected under 35 U.S.C. 103(a) as being unpatentable over Deshpande in view of Chou as applied to claim 58 above, and further in view of Hinderks.

Referring to claim 61, Deshpande and Chou do not disclose a method of claim 58, wherein determining the first multicast address comprises performing a table lookup based on the first data transmission rate.

In an analogous art, Hinderks teaches a method of claim 58, wherein determining the first multicast address comprises performing a table lookup based on the first data transmission rate (page 5, paragraph 54, lines 1-6 and 16-22).

At the time of the invention it would have been obvious for one of ordinary skill in the art to use the lookup table taught by Hinderks in the method disclosed by Deshpande and Chou. The motivation would have been to enable the system to use a one-way network (page 5, paragraph 54, lines 16-22).

Claim 62 is rejected under 35 U.S.C. 103(a) as being unpatentable over Deshpande in view of Chou as applied to claim 58 above, and further in view of Aho.

Referring to claim 62, Deshpande and Chou do not disclose a method of claim 58, further comprising:

determining, at the networked display device, a second data transmission rate of a transmission connection of the networked display device at a second time subsequent to the first time;

determining a second multicast address from the plurality of multicast addresses based on the second data transmission rate; and

receiving, at the networked display device, a second variation of the plurality of versions of the video stream via the transmission connection using the second multicast address for a second duration subsequent to the first duration.

In an analogous art, Aho teaches a method of claim 58, further comprising:

determining, at the networked display device, a second data transmission rate of a transmission connection of the networked display device at a second time subsequent to the first time;

determining a second multicast address from the plurality of multicast addresses based on the second data transmission rate; and

receiving, at the networked display device, a second variation of the plurality of versions of the video stream via the transmission connection using the second multicast address for a second duration subsequent to the first duration (column 2, lines 66-67; column 3, lines 1-13).

At the time of the invention it would have been obvious for one of ordinary skill in the art to use the adaptive transmission rate method taught by Aho in the method disclosed by Deshpande and Chou. The motivation would have been to provide a

system wherein the user can move away from the signal source without losing the feed (Aho: column 3, lines 7-13).

Claim 63 is rejected under 35 U.S.C. 103(a) as being unpatentable over Deshpande in view of Chou in view of Aho as applied to claim 62 above, and further in view of Hinderks.

Referring to claim 63, the claim is rejected on the same grounds as claim 61.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin E. Shepard whose telephone number is (571) 272-5967. The examiner can normally be reached on 7:30-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JS

/Annan Q Shang/
Primary Examiner, Art Unit 2424